# **Mineral Surveyors**

#### **Appointments**

**3-1** 43 C.F.R. 3861.5-1 states:

"Pursuant to section 2334 of the Revised Statutes (30 U.S.C. 39), the Director or his delegate will appoint only a sufficient number of survevors for the survey of mining claims to meet the demand for that class of work. Each applicant shall qualify as prescribed by the Director or his delegate. Applications for appointment may be made at any office of the Bureau of Land Management listed in 3821.2-1 of these regulations. A roster of appointed mineral surveyors will be available at these offices. Each appointee may execute mineral surveys in any state where mineral surveys are authorized."

The Director referred to is the Director, Bureau of Land Management.

3-2 Mineral Surveyors were originally appointed by the Surveyors General (General Land Office) of the various states where mineral surveys are authorized, and were appointed for that State only. As a general rule these men were practicing consulting mining engineers in an area covering one or more mining districts and seldom went out of their area to execute surveys. As a result, over a period of time, they developed a valuable set of survey records pertaining to claim corners, section corners and mine workings. Claimants found it advantageous to employ a mineral surveyor in his district because of his proximity to the work and his previously acquired knowledge.

With the decline in mining activity due to mineral deposits being exhausted or reaching uneconomical depths, and with the improvement in modes of transportation, mineral surveyors found themselves covering larger areas, and many sought appointments in more than one State. With the formation of the Bureau of Land Management and the establishment of areas or regions, the mineral surveyors' appointments were extended to the area or region embracing their State and all adjoining states to the area or region, and finally to all states subject to the Federal mining laws.

3-3 Today, mineral surveyors are appointed by the Chief, Division of Cadastral Survey of the Bureau of Land Management at Washington, who acts for the Director. Application may be made to any State Office or directly to the Washington Office. The application should contain a brief resume of the applicant's experience in land surveying, mining and geology and list the states in which he is registered as a land surveyor, or as a professional engineer if that state permits certain classes of professional engineers to do land surveying. The applicant is cautioned, however, that appointments are made only if a need is demonstrated by one of the State Directors, and he requests that an examination be held at his office to supplement the roll of mineral surveyors. Appointments are presently for a four-year period.

3-4 Mineral surveyors were originally bonded and such bonds were usually for a four-year period. The renewal of these bonds served to keep the roster of mineral surveyors active. Bonds are no longer required, but the mineral surveyor must request renewal of his appointment 60 days before its expiration. Renewal is based on his activity as a mineral surveyor, the quality of his work and the timeliness of filing returns of his surveys. If the record shows that he has not been actively engaged in executing mineral surveys, he may be dropped from the rolls. If he allows his appointment to lapse, he

will not be reinstated or reappointed unless he demonstrates his capability to make mineral surveys, and there is a need for additional mineral surveyors.

- 3-5 A mineral surveyor's appointment may be revoked at any time for just cause, among which are: incompetence, gross misconduct, conflict of interest, failure to personally execute a survey, failure to prosecute work diligently, and failure to file timely returns.
- **3-6** Before the revocation as stated in 3-5 can occur, any outstanding surveys or survey orders must be disposed of by completion, cancellation or by issuing a new order to another mineral surveyor, as mutually agreed on by all parties.

## Qualification

- 3-7 Although the mineral surveyor, as an employee or officer of the Federal Government. is not subject to State laws regulating the practice of land surveying, he will find it advisable to be registered, at least in his home State, if not in other states where he engages in mineral land surveying. Actually, he is only exempt from registration when he is working under a mineral survey order and as such he is limited to work covered by the order. However, the States of California and Nevada specifically permit a United States Mineral Surveyor to make a location survey and to make such survey a part of the record. (Public Resources Code of California, Sec. 2311, and 517.210 R.S. Nevada.) A mineral surveyor would probably not be questioned in other states if he is making an amended location survey or field examination prior to the application for survey. Often, additional work will be required by the claimant and the mineral surveyor will have to refer this work to others or associate with a registered surveyor. Furthermore, if an applicant for appointment is not registered in his home State, the Chief of the Division of Cadastral Survey may require a more extensive examination so as to embrace material normally covered in State examinations.
- 3-8 Although basically a land surveyor, the mineral surveyor should have a working knowledge of geology, ore deposits and principles of mining in order to properly execute his work. He should also be familiar with the methods of making underground surveys. He may acquire such knowledge informally by reading texts on the subjects and through

membership in local mining associations and organizations.

- 3-9 Applicants for appointment as Mineral Surveyor must pass a 16-hour examination with a grade of 70 consisting essentially of four parts:
- 1. A solar observation for azimuth consisting of six consecutive readings, with an engineer's transit or double center theodolite, three each with the telescope in direct and reversed positions observing opposite limbs of the sun; together with the necessary calculations to determine the true meridian. The applicant will furnish the instrument used.
- 2. Correctly answer questions on the legal and technical aspects of mineral surveys. Such questions may be of the true/false or multiple choice type.
- 3. Solve a practical problem relating to mining claims, including conflicts, where a set of conditions are given.
- 4. Prepare a set of field notes and prepare a preliminary plat from given field data.

References and calculators including minicomputers may be used in the examination. It is an open book examination.

The examination will be held in the office of the State Director who made the request, but it is not limited to residents of that State and anyone whose application has been accepted may take the examination at his own expense. Upon successful completion of the examination, the applicant will furnish the names of three references who are familiar with his character, integrity and capability as a surveyor. The examination is prepared by the Washington Office and mailed in a sealed envelope bearing the applicant's name to the State office. The completed examination is returned to the Washington Office in a sealed envelope for each applicant for grading.

#### **Duties of the Mineral Surveyor**

3-10 The duties of the mineral surveyor begin with an order for survey and cease with the approval of that survey. This precludes using data acquired by former surveys and by reason of having made the location or amended location survey, unless such data is verified by field work and examination after the survey order is issued.

The surveyor should not act as agent for the claimant in the signing of location or amended location certificates, although he may post such notices for the claimant. The mineral surveyor is prohibited from taking any part in the patent application; however, he may assist the attorney or agent or the claimant himself in interpreting his field notes, including the area statement. A mineral surveyor exceeds his duties if he prepares the notices of application for patent (24 L.D. 193).

3-11 The survey must be made in person by the mineral surveyor. This does not mean that every physical act of survey must be performed by him, but it must be performed under his direct supervision in the field. The mineral surveyor is prohibited from delegating such supervision to employees. In other words, the mineral surveyor cannot send a field party out to do the work under his authority without being on the ground himself. There is no objection to having more than one survey crew perform the field work as long as the mineral surveyor can give each crew adequate supervision. The same rule applies to office work in connection with the survey.

There is nothing that prohibits a mineral surveyor from being a part of an engineering and/or surveying firm, but he should be a principal of that firm. If he works as an employee of such a firm, he is compromising his appointment, for as a mineral surveyor he is an employee of the Bureau of Land Management.

He cannot be an employee of the claimant, nor can he employ the claimant, his attorney or parties in interest as assistants in making surveys of mineral claims (43 C.F.R. 3861.3-2).

3-12 The survey must be an actual survey on the ground. This precludes the calculation of ties and other lines through prior surveys. (See 6 L.D. 718 which disallowed a section corner tie calculated from another survey and required an amended survey to run the section tie on the ground.)

3-13 The mineral surveyor should bear in mind that his field work is subject to spot checks by cadastral surveyors of the Bureau of Land Management for sufficiency and accuracy; also, if his returns of a survey indicate irregularities, a complete examination by the Bureau of Land Management may be made. Such field checks will normally be made when a field party is in the area during the normal course of a field season. Irregularities that cannot be resolved with the mineral surveyor may call for a special field examination.

## **Contract for Surveys**

3-14 43 C.F.R. 3861.4-1 Payment: (a) The claimant is required in all cases to make satisfactory arrangements with the surveyor for the payment for his services and those of his assistants in making the survey, as the United States will not be held responsible for the same. (b) The State Director has no jurisdiction to settle differences relative to the payment of charges for field work between mineral surveyors and claimants. These are matters of private contract and must be enforced in the ordinary manner, i.e., in the local courts. The Department has, however, authority to investigate charges affecting the official actions of mineral surveyors, and will, on sufficient cause shown, suspend or revoke their appointment. (See 3-1 above.)

3-15 30 U.S.C. 39 states in part: "The Director of the Bureau of Land Management shall also have the power to establish the maximum charges for surveys . . .; and to the end that the Director may be fully informed on the subject, each applicant (for patent) shall file with the Manager (of the land office) a sworn statement of all charges and fees paid by such applicant for . . . surveys . . . ."

3-16 Many factors enter into the ultimate cost of a mineral survey, such as the terrain, distance from centers of population, condition of the public land survey, number of conflicts with prior surveys and patents, the age of conflicting surveys, variable weather conditions, and inflation.

Cost should be a secondary consideration in selecting a mineral surveyor and the remuneration should be such as to assure an adequate job. Many of the early day surveys of the public lands resulted in poor or even fraudulent work because of the low contract price.

If a mineral surveyor has had considerable experience in an area, he may agree to a fixed price per claim, plus a fixed price per conflict and per mile of retracement of section lines with subdivision of sections as required. An alternative to this is a daily or hourly fee for each principal or party chief and assistants, plus expenses at cost, which assures the Bureau of Land Management and the claimant that quality will not be sacrificed because of cost. In the latter case, the mineral surveyor should provide the claimant with an estimate so that he

will be prepared to meet his invoices. Either type of contract should provide for periodic payments, and the mineral surveyor is justified in requesting an advance deposit. In any event, payment for the mineral survey is a matter of private contract; the foregoing are merely suggestions.

3-17 Inasmuch as mineral surveyors may not hold an interest in the public domain (see Sec. 3-18 below), they are prohibited from accepting an interest in the claims as payment for his services.

## Restrictions

follows:

3-18 The following is quoted from the current (1977) letter appointing mineral surveyors:

"As a special Government employee (see Waskey v. Hammer. 223 U.S. 85, 1911), you are subject to the pertinent conflict of interest statutes and standards of ethical conduct as set out in 18 U.S.C. 202 and E.O. 11222, Part III. You and your wife are prohibited from acquiring an interest in the public lands, either directly or indirectly, by provisions of 43 U.S.C. 11 and 43 C.F.R., Part 7. This prohibition extends to locating and holding in your names and mining claims, oil and gas leases, grazing licenses or permits, cadastral survey contracts, or making any other application or filing under the public land laws." 43 C.F.R. 7.2 defines interest as

"The term 'interest' means any direct or indirect ownership in whole or in part of the lands or resources in question, or any participation in the earnings therefrom, or the right to occupy or use the property or to take any benefits therefrom based on a lease or rental agreement, or upon any formal or informal contract with a person who has such an interest. It includes membership in a firm, or ownership of stock or other securities in a corporation which has such an interest: Provided, that stock or securities traded on the open market may be purchased by an employee if the acquisition thereof will not tend to interfere with the proper and impartial performance of the duties of the employee or bring discredit upon the Department."

Employees stationed in Alaska are exempt from the above, except for a mineral lease or mining claim, and may acquire one tract of land, not exceeding five acres, for residence or recreation purposes. [43 C.F.R. 7.4(a)(1) and (2).] Retention of an interest may be approved upon written request to the Secretary of the Interior, provided the interest was acquired prior to becoming an employee or the interest was acquired by gift, devise, bequest, or by operation of law.

3-19 The mineral surveyor may be required to file with the Bureau of Land Management a "Public Disclosure Statement of Known Financial Interests" under the Federal Land Policy and Management Act.

3-20 It should be clear why the foregoing restrictions are placed on mineral surveyors. They remove any possible conflict of interest and the claimant may deal freely with the mineral surveyor knowing that he cannot benefit from any information or knowledge gained during the course of the survey.